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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,806	04/30/2001	Alan D. Davie	K35A0766	5857

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HENSLEY KIM & EDGINGTON, LLC
1660 LINCOLN STREET
SUITE 3050
DENVER, CO 80264

EXAMINER	
DENNISON, JERRY B	
ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/846,806	DAVIE, ALAN D.	
	Examiner	Art Unit	
	J. Bret Dennison	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Action is in response to the RCE filed for Application Number 09/846,806 received on 09 December 2005.

2. Claims 1-46 are presented for examination.

3. The prosecution for this case has been assigned to another Examiner. All future communications concerning this case should be directed to the new Examiner.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 December 2005 has been entered.

Response to Arguments

4. Applicant's arguments, see previous response, filed 12/09/2005, with respect to the rejection(s) of claim(s) 1-46 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as provided below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2, 3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 2 recites the limitation "the set of code modules" in the second limitation of the claim. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 3 recites the limitation "scanning the SAN to discover a set of SAN devices, the set of SAN devices including a first SAN device whose device identifier matches the first SAN device identifier." It is unclear to Examiner how the first SAN device is discovered even though the data processing system already contains a first device identifier. Claim 2 clearly states that the first SAN device identifier already exists in the device information of the data processing system. One of ordinary skill in the art would interpret having the first SAN device identifier to mean that the first device was already discovered. It also unclear to Examiner how the data processing system would be able to match the device identifier of a newly discovered device with a first SAN device identifier of an already stored within the data processor's device information, as interpreted by the claim.

7. Claims 5, 6, 11, 15, 22, 23, include limitations similar to claim 3, and are rejected under the same rationale.

Claim Interpretation

8. As explained in the instant Specification, "A SAN generally comprises of four classes of components or devices: (1) end-user platforms such as computer systems 102, thin clients, etc.; (2) server systems such as servers 108 depicted in Fig. 1; (3)

storage devices and storage subsystems 106 which are used to store data/information; and (4) interconnect entities which provide interconnectivity between the various SAN components and with other devices/networks" [see Instant Specification, page 6, lines. 6-16]. A reasonable interpretation of a SAN device would include any of these "components or devices".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-11, 14, 19, 20, 24, 29, 33, 34, 35, 37, 41, and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumar et al. (U.S. 6,769,008).

9. Regarding claims 1, 2, Kumar disclosed a method and apparatus for dynamically altering configurations of clustered computing systems while the clustered computing system provides uninterrupted services, thereby allowing alterations of existing configurations without having to completely shutdown the clustered computing system (Kumar, col. 5, lines 1-12). Therefore, upon the execution of a program, the present configurations of the components and devices of the clustered system must be used at least for initialization of the system, and in order for the component configurations to be used, they must be loaded into an address space of the executing program. The alteration (or modification) to the configuration of the clustered computing system is referred to as dynamic because it is performed while the clustered computing system is active, namely, while one or more nodes are active (i.e. operational). Accordingly, the configuration of the clustered computing system can be dynamically altered without significantly interfering with ongoing operations or services provided by the clustered computing system (Kumar, col. 6, lines 10-16). Therefore, this dynamic alteration occurs during the execution of a program.

Each node in the cluster system stores Cluster Configuration Information (CCI), which describes nodes, devices, interconnections of the clustered system, and component vote information (Kumar, col. 5, lines 53-65). Therefore, this CCI includes identifiers that describe the nodes, devices, and interconnections.

Kumar disclosed receiving a configuration alteration request of an existing configuration, selecting one of the components associated with the configuration alteration request as a selected component, updating the configuration vote information

of the active component in accordance with the vote while the at least one active component remains active, and checking for a successful configuration alteration (Kumar, col. 3, lines 30-50). This means that the new configuration of the component or device is loaded into the system and used.

Therefore, Kumar disclosed in a network environment comprising a data processing system coupled to a storage area network (SAN), a method of dynamically loading code modules, the method comprising:

executing a program on the data processing system, and upon execution:

accessing device information, the device information comprising information identifying a set of SAN device identifiers and a set of code modules associated with the set of SAN device identifiers (Kumar, col. 6, lines 20-35);

loading the set of code modules referenced by the device information into an address space of the execution program (Kumar, col. 6, lines 20-35);

while executing the program:

providing a signal to the executing program indicating that the device information has been modified to produce modified device information (Kumar, col. 3, lines 34-36);

in response to the signal:

deleting the set of code modules referenced by the device information before modification from the address space of the executing program (Kumar, col. 3, lines 35-45);

accessing the modified device information; and

loading a set of code modules referenced by the modified device information into the address space of the executing program (Kumar, col. 3, lines 35-45).

10. Claims 8, 10, 14, 19, 20, 24, 29, 33, 34, 35, 37, 41, and 46 include limitations that are substantially similar to the limitations of claim 1, and are therefore rejected under the same rationale.

11. Regarding claim 4, Kumar disclosed the limitations, substantially as claimed, as described in claim 1, including the addition of new components/devices into the system (Kumar, col. 3, lines 30-40). The addition of new components/devices requires the addition of a new device identifier in the CCI as well as the configuration for the new components/devices (Kumar, col. 5, lines 50-67).

12. Regarding claims 3, 5, 6, and 11, Kumar disclosed the limitations, substantially as claimed, as described in claims 2, 4 and 10, including altering the configuration for the addition of one or more components (Kumar, col. 3, lines 30-40). Kumar also disclosed the nodes of the clustered system sending each other periodic heartbeat signals to indicated whether the nodes are active and responsive to other nodes in the clustered system (Kumar, col. 2, lines 8-15). It is inherent that current configurations are used for communication of these devices/components. Therefore, a first

configuration is used until the configuration is updated, and then the updated configuration is used.

13. Regarding claims 7 and 9, Kumar disclosed the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the device information is stored in a plurality of files, each file including information related to a SAN device identifier from the set of SAN device identifiers and information related to a code module associated with the SAN device identifier (Kumar, col. 5, lines 50-67). When the modified device information is stored, the modified device information replaces the old device information, and is therefore not stored with the old device information.

14.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. (U.S. 6,769,008).

15. Regarding claim 12, Kumar disclosed the limitations, substantially as claimed, as described in claim 11, including the use of periodic heartbeat signals to keep track of active nodes of the system (Kumar, col. 2, lines 8-15).

Kumar did not explicitly state instantiating an object using the second code module;

associating the object with the first device; and

using the object to monitor the first device.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that using heartbeat signals to monitor for active devices requires using the configuration information in the CCI in order to successfully communicate with the devices. Examiner takes Official Notice (see MPEP § 2144.03) that the use of object-oriented programming in network monitoring and managing was well known in the art at the time the invention was made.

Examiner suggests review of the following patent:

Holloway et al. (U.S. 6,176,883) disclosed monitoring and managing a network by defining and treating information of interest at network devices as one or more variables. In SNMP parlance, these one variables are referred to as "objects."

16. Regarding claim 13, Kumar disclosed the limitations, substantially as claimed, as described in claim 11, including the use of periodic heartbeat signals to keep track of active nodes of the system (Kumar, col. 2, lines 8-15). Kumar did not explicitly disclose the use of SNMP protocol to determine identifiers of the devices. Examiner takes

Official Notice (see MPEP § 2144.03) that the "use of SNMP for device discovery and monitoring" was well known in the art at the time the invention was made.

Examiner suggests review of the following patent:

Roy et al. (U.S. Pub 2002/0062366) disclosed the use of SNMP for device discovery and monitoring of devices.

The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03, namely, "if applicant traverses such an assertion, the examiner should cite a reference in support of his or her position". However, MPEP § 2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169 USPQ 231, 234 states "as we held in *Ahlert*, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Claims 15-46 include limitations that are substantially similar to the limitations of claims 1-14, and are therefore rejected under the same rationale.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. B. D.
Patent Examiner
Art Unit 2143

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100